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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,278	11/17/2003	Ran J. Flam	sparta01.019	4594

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EXAMINER	
CRIBBS, MALCOLM D	
ART UNIT	**PAPER NUMBER**
2115	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/715,278	FLAM ET AL.	
	Examiner	Art Unit	
	Malcolm D. Cribbs	2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,11,17 and 19-26* is/are rejected.

7)☒ Claim(s) *10,12-14,16 and 18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-26 are presented for examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-9, 11, 17, and 19-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nixon et al [Patent No US 6,687,698] in view of Brown et al [US Patent No 3,886,525].

As per claim 1, Nixon et al disclose the invention comprising:

making a second configuration table that define configuration m+1 [make a clone of the configuration database and update the clone with the new values, col. 37, lines 21 – 25]; and

using the second configuration table to modify the first configuration table [col. 37, lines 26 – 27].

Nixon et al do not teach the making a determination whether the first configuration table was still define the configuration m nor the modifying of the configuration table based upon the determination result. In summary, Nixon et al do not teach the step to solve the potential racing problem caused by multiple clients attempting to update the configuration table asynchronously. Specifically, Nixon et al do

not want to lock up the shared data structure (configuration database) for an extended time period (col. 37, lines 28 – 30). Nixon et al explicitly disclose that, without locking for an extended time period, there is a possibility of racing problem in migrating the configuration database[1]. Nixon et al suggest the lock manager should take action to solve the racing problem. But Nixon et al do not provide the details thereof. As such, an ordinary skill in the art would have been motivated to look for solution to solve the racing problem.

Brown et al teach another system for allowing asynchronously accessing and modifying of a shared data structure by multiple clients. Brown et al solve the racing problem caused by multiple clients attempting to modify the shared data structure asynchronously. Specifically, Brown et al save a copy $C(D_1)$ of data structure D_1 and make a modified copy of the data structure D_2 from D_1. Thereafter, Brown et al compare $C(D_1)$ with the original D_1. If $C(D_1)$ is equal to D_1[2], Brown et al use D_2 to replace D_1. [see col. 2, lines 20 – 38]. This method would solve the racing problem by ensuring that another client has not changed D_1 while the first client is making change to D_1.

It would have been obvious to one of ordinary skill in the art to combine the teachings of Nixon et al and Brown et al because they both teach the asynchronously accessing and modifying of a shared data structure without locking the data structure for an extended time period. Brown et al provide the solution to the racing problem as noticed by Nixon et al.

As per claim 2-3, and 5-6, Brown teaches a method of using a snapshot [it would have been obvious to one of ordinary skill in the art to make and use a snapshot to compare both data as when Brown compares and swaps] to make a determination.

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[1] Both the first and second clients can access and modify the configuration database asynchronously. The lock manager locks up the database and allows the first client to make a clone C_1 thereof. Thereafter, the lock is released and the first client modifies the values of the clone C_1. After the lock is released, the second client can make its own clone of the database. Before the first client replaces the original database with the modified clone $M(C_1)$, the second client may already replace the original database with its modified clone $M(C_2)$.

As per claim 4, Brown teaches the invention of making and modifying a copy [Col 2 lines 8-38].

As per claims 7-9, it would have been obvious to one of ordinary skill in the art as proposed by the Applicant's admitted prior art [Page 3 lines 15-21 and Page 4 lines 7-14].

As per claim 11, Applicant's admitted prior art teaches the invention of modifying the first tables with the second while it is obvious to modify data tables in various ways including record by record [Page 4 lines 7-9].

As per claim 17, Applicant's admitted prior art teaches the invention of including configuration tracking tables Page 3 lines 15-29].

As per claims 19-25, it is directed to the apparatus to implement the method of steps as set forth in claims 1-18. Therefore, it is rejected for the same basis as set forth hereinabove.

Claims 10, 12-14, 16, and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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[2] If other client has not replaced the value of D_1, the value of D_1 maintains its previous value.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Malcolm D. Cribbs whose telephone number is 571-272-5689. The examiner can normally be reached on M-F 8AM-430PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Malcolm D Cribbs
Examiner
Art Unit 2115

January 4, 2007
MC